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- (1) One vehicle carrying the extinguishing agents as specified in paragraphs (a)(1) or (a)(2) of this section; and
- (2) Two vehicles carrying an amount of water and the commensurate quantity of AFFF so the total quantity of water for foam production carried by all three vehicles is at least 6,000 gallons.
- (f) Foam discharge capacity. Each aircraft rescue and firefighting vehicle used to comply with Index B, C, D, or E requirements with a capacity of at least 500 gallons of water for foam production must be equipped with a turret. Vehicle turret discharge capacity must be as follows:
- (1) Each vehicle with a minimumrated vehicle water tank capacity of at least 500 gallons, but less than 2,000 gallons, must have a turret discharge rate of at least 500 gallons per minute, but not more than 1,000 gallons per minute.
- (2) Each vehicle with a minimumrated vehicle water tank capacity of at least 2,000 gallons must have a turret discharge rate of at least 600 gallons per minute, but not more than 1,200 gallons per minute.
- (g) Agent discharge capacity. Each aircraft rescue and firefighting vehicle that is required to carry dry chemical, halon 1211, or clean agent for compliance with the Index requirements of this section must meet one of the following minimum discharge rates for the equipment installed:
- (1) Dry chemical, halon 1211, or clean agent through a hand line—5 pounds per second.
- (2) Dry chemical, halon 1211, or clean agent through a turret—16 pounds per second.
- (h) Extinguishing agent substitutions. Other extinguishing agent substitutions authorized by the Administrator may be made in amounts that provide equivalent firefighting capability.
- (i) AFFF quantity requirements. In addition to the quantity of water required, each vehicle required to carry AFFF must carry AFFF in an appropriate amount to mix with twice the water required to be carried by the vehicle.

- (j) Methods and procedures. FAA Advisory Circulars contain methods and procedures for ARFF equipment and extinguishing agents that are acceptable to the Administrator.
- (k) *Implementation*. Each holder of a Class II, III, or IV Airport Operating Certificate must implement the requirements of this section no later than 36 consecutive calendar months after June 9, 2004.

[Doc. No. FAA-2000-7479, 69 FR 6424, Feb. 10, 2004; Amdt. 139-26, 69 FR 31523, June 4, 2004]

## § 139.319 Aircraft rescue and firefighting: Operational requirements.

- (a) Rescue and firefighting capability. Except as provided in paragraph (c) of this section, each certificate holder must provide on the airport, during air carrier operations at the airport, at least the rescue and firefighting capability specified for the Index required by §139.317 in a manner authorized by the Administrator.
- (b) Increase in Index. Except as provided in paragraph (c) of this section, if an increase in the average daily departures or the length of air carrier aircraft results in an increase in the Index required by paragraph (a) of this section, the certificate holder must comply with the increased requirements.
- (c) Reduction in rescue and firefighting. During air carrier operations with only aircraft shorter than the Index aircraft group required by paragraph (a) of this section, the certificate holder may reduce the rescue and firefighting to a lower level corresponding to the Index group of the longest air carrier aircraft being operated.
- (d) Procedures for reduction in capability. Any reduction in the rescue and firefighting capability from the Index required by paragraph (a) of this section, in accordance with paragraph (c) of this section, must be subject to the following conditions:
- (1) Procedures for, and the persons having the authority to implement, the reductions must be included in the Airport Certification Manual.
- (2) A system and procedures for recall of the full aircraft rescue and firefighting capability must be included in the Airport Certification Manual.

- (3) The reductions may not be implemented unless notification to air carriers is provided in the Airport/Facility Directory or Notices to Airmen (NOTAM), as appropriate, and by direct notification of local air carriers.
- (e) Vehicle communications. Each vehicle required under §139.317 must be equipped with two-way voice radio communications that provide for contact with at least—
- (1) All other required emergency vehicles:
  - (2) The air traffic control tower;
- (3) The common traffic advisory frequency when an air traffic control tower is not in operation or there is no air traffic control tower, and
- (4) Fire stations, as specified in the airport emergency plan.
- (f) Vehicle marking and lighting. Each vehicle required under § 139.317 must—
- (1) Have a flashing or rotating beacon and
- (2) Be painted or marked in colors to enhance contrast with the background environment and optimize daytime and nighttime visibility and identification.
- (g) Vehicle readiness. Each vehicle required under §139.317 must be maintained as follows:
- (1) The vehicle and its systems must be maintained so as to be operationally capable of performing the functions required by this subpart during all air carrier operations.
- (2) If the airport is located in a geographical area subject to prolonged temperatures below 33 degrees Fahrenheit, the vehicles must be provided with cover or other means to ensure equipment operation and discharge under freezing conditions.
- (3) Any required vehicle that becomes inoperative to the extent that it cannot perform as required by paragraph (g)(1) of this section must be replaced immediately with equipment having at least equal capabilities. If replacement equipment is not available immediately, the certificate holder must so notify the Regional Airports Division Manager and each air carrier using the airport in accordance with §139.339. If the required Index level of capability is not restored within 48 hours, the airport operator, unless otherwise authorized by the Administrator, must limit air carrier operations on the airport to

- those compatible with the Index corresponding to the remaining operative rescue and firefighting equipment.
- (h) Response requirements. (1) With the aircraft rescue and firefighting equipment required under this part and the number of trained personnel that will assure an effective operation, each certificate holder must—
- (i) Respond to each emergency during periods of air carrier operations; and
- (ii) When requested by the Administrator, demonstrate compliance with the response requirements specified in this section.
- (2) The response required by paragraph (h)(1)(ii) of this section must achieve the following performance criteria:
- (i) Within 3 minutes from the time of the alarm, at least one required aircraft rescue and firefighting vehicle must reach the midpoint of the farthest runway serving air carrier aircraft from its assigned post or reach any other specified point of comparable distance on the movement area that is available to air carriers, and begin application of extinguishing agent.
- (ii) Within 4 minutes from the time of alarm, all other required vehicles must reach the point specified in paragraph (h)(2)(i) of this section from their assigned posts and begin application of an extinguishing agent.
- (i) *Personnel*. Each certificate holder must ensure the following:
- (1) All rescue and firefighting personnel are equipped in a manner authorized by the Administrator with protective clothing and equipment needed to perform their duties.
- (2) All rescue and firefighting personnel are properly trained to perform their duties in a manner authorized by the Administrator. Such personnel must be trained prior to initial performance of rescue and firefighting duties and receive recurrent instruction every 12 consecutive calendar months. The curriculum for initial and recurrent training must include at least the following areas:
- (i) Airport familiarization, including airport signs, marking, and lighting.
  - (ii) Aircraft familiarization.
- (iii) Rescue and firefighting personnel safety.

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- (iv) Emergency communications systems on the airport, including fire alarms.
- (v) Use of the fire hoses, nozzles, turrets, and other appliances required for compliance with this part.
- (vi) Application of the types of extinguishing agents required for compliance with this part.
- (vii) Emergency aircraft evacuation assistance.
  - (viii) Firefighting operations.
- (ix) Adapting and using structural rescue and firefighting equipment for aircraft rescue and firefighting.
- (x) Aircraft cargo hazards, including hazardous materials/dangerous goods incidents.
- (xi) Familiarization with firefighters' duties under the airport emergency plan.
- (3) All rescue and firefighting personnel must participate in at least one live-fire drill prior to initial performance of rescue and firefighting duties and every 12 consecutive calendar months thereafter.
- (4) At least one individual, who has been trained and is current in basic emergency medical services, is available during air carrier operations. This individual must be trained prior to initial performance of emergency medical services. Training must be at a minimum 40 hours in length and cover the following topics:
  - (i) Bleeding.
  - (ii) Cardiopulmonary resuscitation.
  - (iii) Shock.
- (iv) Primary patient survey.
- (v) Injuries to the skull, spine, chest, and extremities.
  - (vi) Internal injuries.
  - (vii) Moving patients.
  - (viii) Burns.
  - (ix) Triage.
- (5) A record is maintained of all training given to each individual under this section for 24 consecutive calendar months after completion of training. Such records must include, at a minimum, a description and date of training received.
- (6) Sufficient rescue and firefighting personnel are available during all air carrier operations to operate the vehicles, meet the response times, and meet the minimum agent discharge rates required by this part.

- (7) Procedures and equipment are established and maintained for alerting rescue and firefighting personnel by siren, alarm, or other means authorized by the Administrator to any existing or impending emergency requiring their assistance.
- (j) Hazardous materials guidance. Each aircraft rescue and firefighting vehicle responding to an emergency on the airport must be equipped with, or have available through a direct communications link, the "North American Emergency Response Guidebook" published by the U.S. Department of Transportation or similar response guidance to hazardous materials/dangerous goods incidents. Information on obtaining the "North American Emergency Response Guidebook" is available from the Regional Airports Division Manager.
- (k) Emergency access roads. Each certificate holder must ensure that roads designated for use as emergency access roads for aircraft rescue and firefighting vehicles are maintained in a condition that will support those vehicles during all-weather conditions.
- (1) Methods and procedures. FAA Advisory Circulars contain methods and procedures for aircraft rescue and fire-fighting and emergency medical equipment and training that are acceptable to the Administrator.
- (m) Implementation. Each holder of a Class II, III, or IV Airport Operating Certificate must implement the requirements of this section no later than 36 consecutive calendar months after June 9, 2004.

[Doc. No. FAA-2000-7479, 69 FR 6424, Feb. 10, 2004; Amdt. 139-26, 69 FR 31523, June 4, 2004]

## § 139.321 Handling and storing of hazardous substances and materials.

(a) Each certificate holder who acts as a cargo handling agent must establish and maintain procedures for the protection of persons and property on the airport during the handling and storing of any material regulated by the Hazardous Materials Regulations (49 CFR 171 through 180) that is, or is intended to be, transported by air. These procedures must provide for at least the following: